# Name: ZL-3002 Mooney Viscometer



- → Direct Manufacturer.
- $\rightarrow$  Excellent Quality.
- $\rightarrow$ Technical Innovation.
- $\rightarrow$  Fast Shipping.
- $\rightarrow$ Superior Service.

### Mooney rubber Viscometer testing machine

It is an instrument used for measuring the mooney viscosity of a substance (mainly elastomers and rubbers). It contains a rotating spindle and heated dies, the substance encloses and overflow the spindle and the mooney viscosity is calculated from the torque on the spindle.

#### Standards:

ASTM-D2084, ASTM-D5289, ISO-6502, ASTM-D1646,

### **Technical parameter:**

Model	ZL-3002				
Control temperature range	Normal temperature~200℃				
Temperature display resolution	0.01℃ (0.1 ℃ common type of imported temperature controller				
	temperature)				
Temperature control accuracy	±0.3℃				
Calibration accuracy	Mooney value ±0.5				
Rotor speed	2 rotation/ min ±0.02rotation/ min				
Torque range	Mooney value 0∼200				
Torque resolution	Mooney value 0.1				
Print content	Date, time, temperature, Mooney scorch curve and				
	MV,T5,T35,T3,T18,@15,@30				
Power	50HZ, ∼220V±10%				

#### **Test Results**

Measure of Mooney viscosity (Large rotor):

MI -- initial Mooney viscosity.

ML – The minimum Mooney value in the last 30 seconds before the motor stopped.

Mx-t - Mooney value relating to time t.

x-the time of preheat, t-Mooney test time

Stress Relaxation

MRe - Mooney value at the end of stress relaxation.

TRx - time needed for x% torque stress relaxation.

Xy% - % of Viscosity decay after motor stopped y sec.

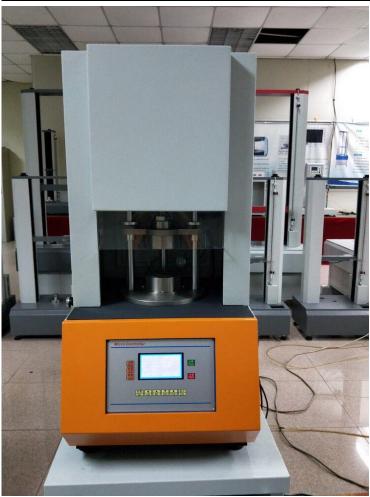
The value of exponent a, the constant k, the correlation coefficient r, and the area A.

Graph (with Viscosity-Time curve and Test temperature curve)

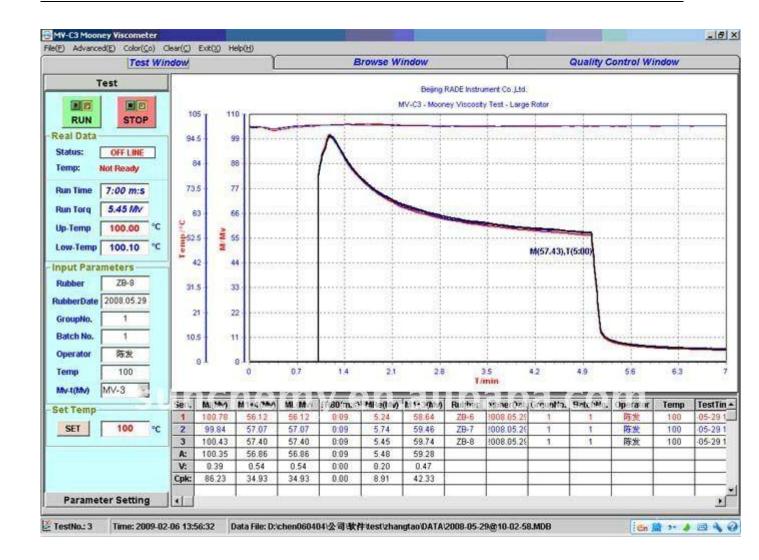
Mooney viscosity graph; Relaxation graph; log Mooney units Versus Log time graph.

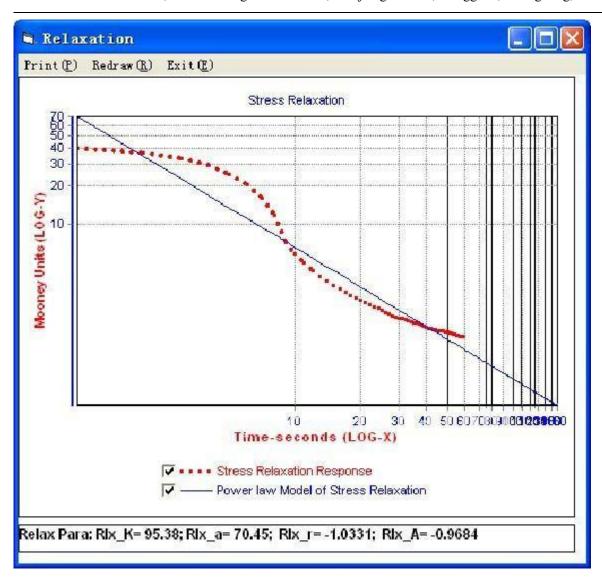
#### **Machine Picture**











Scorch Data testing sample results:

- -Scorch time curve
- -Temperature curve
- -Curve index (Input small or Large Rotor test
- MI initial Mooney viscosity
- ML Minimum Mooney viscosit
- MF Maximum Mooney viscosity in the end of the test

Mx-t - Mooney value relating to time t.

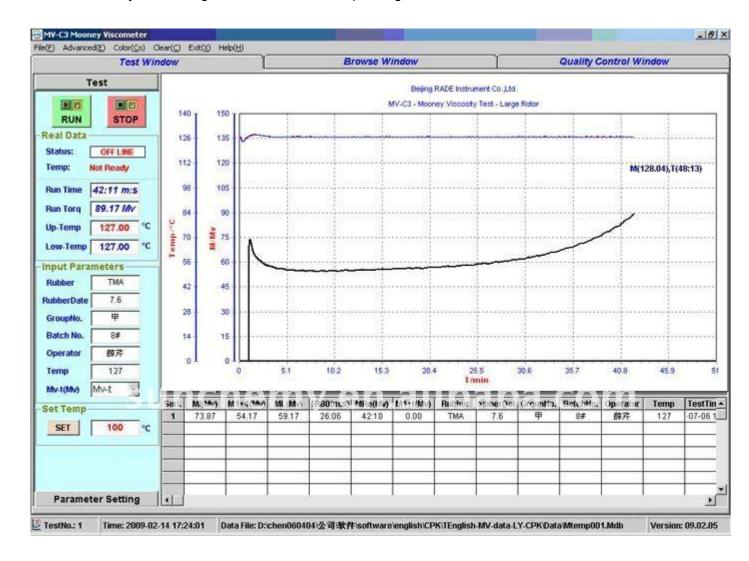
x-the time of preheat, t-Mooney test time

M5/M3 - ML+5/3 Mooney

M35/M18 - ML+35/18 Mooney

t5/t3 - Mooney burning time, M5/M3 corresponding time, Unit: min.

t35/t18 - Mooney vulcanizing time, ML+35/18 corresponding time, unit: min.



# Standard Configure of MV-C3 Mooney Viscometer

1 Machine Complete 1 Unit

2 O-ring 1 piece

3 Software operate 1 Unit

4 Large Rotor 1 Unit

5 Small Rotor 1 Unit

6 Warranty 1 Year(in China or free parts providing for out of Country)

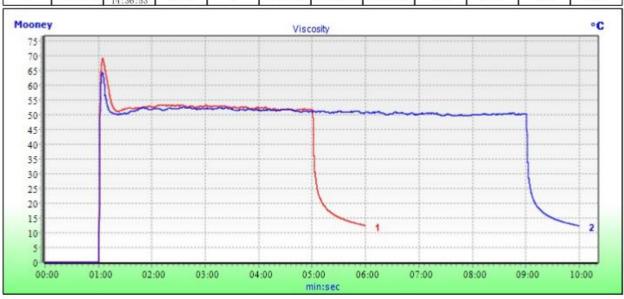
7 Manual operator 1 Unit

## **Test Report:**

## GS-Mooney Computer System Testing Machine

#### Test Report

rmula No	: LY-1		Formula Name: G					Report Date: 2017/08/26 14:50				
No.	Rubber Date	Test Time	Test Temperatur	Rotor Type	Pre Time	Test Time	Stess Relaxtion	MS (MI)	MF (MV)	VM (LM)	Mrlx	
			* "C		hr:min:sec	hr:min:sec	hr:min:sec	Mooney	Mooney	Mooney	Mooney	
1	B3/1172	2017/08/26 14:29:14	125. 0	L	00:01:00	00:04:00	00:01:00	69. 2	51.8	51. 4	12, 4	
2	B3/11849	2017/08/26	125.0	L	00:01:00	00:08:00	00:01:00	64. 4	50. 2	50. 1	12. 4	



## **Machine certificate:**





## **Related Machine:**



# **Zhongli Introduction:**

Zhongli Instrument Located in Dongguan, Guangdong, China. It is a collection development, research, production and sales of integrated lab testing machine.

Zhongli attaches great importance on the construction of independent R&D ability and technical force, and has already built up a professional work team possessing independent R&D ability in order to design and produce better products to meet customers' requirements. Our machines adopt advanced technology and have good quality with high detecting sensitivity, strong anti-interference ability, stable performance etc. Customization is available in Zhongli, and our engineers can design drawings for customers to meet special requirements, also we can design and install machines according to different production lines.

We adhere to the conception of "Customer First", regard meeting customers' requirements as a primary goal and contribute to providing perfect products and satisfying services to our customers.



Thank you!